

# **EXHIBIT 1**

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UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF OKLAHOMA

IVAN NIBUR, LAWRENCE ROSS, )  
JASE LUNA, MATTHEW )  
WILLENBUCHER, and the DUANE & )  
VIRGINIA LANIER TRUST, )  
Individually and On Behalf of )  
All Others Similarly Situated, )

Plaintiffs, )

vs. )

Case No. 15-cv-00634-M

SANDRIDGE MISSISSIPPIAN TRUST )  
I, SANDRIDGE MISSISSIPPIAN )  
TRUST II, TOM L. WARD, JAMES )  
D. BENNETT, MATTHEW K. GRUBB, )  
RANDALL D. COOLEY, JIM J. )  
BREWER, EVERETT R. DOBSON, )  
WILLIAM A. GILLILAND, DANIEL )  
W. JORDAN, ROY T. OLIVER, JR., )  
JEFFREY S. SEROTA, D. DWIGHT )  
SCOTT, RAYMOND JAMES & )  
ASSOCIATES, INC., MORGAN )  
STANLEY & CO. LLC (F/K/A )  
MORGAN STANLEY & CO INC.), )  
MERRILL LYNCH, PIERCE, FENNER )  
& SMITH, INC., CITIGROUP )  
GLOBAL MARKETS INC., and RBC )  
CAPITAL MARKETS, LLC, )

Defendants. )

SANDRIDGE ENERGY, INC. )

Nominal Defendant. )

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1 UNITED STATES DISTRICT COURT  
2 WESTERN DISTRICT OF OKLAHOMA

3  
4  
5 In re SANDRIDGE ENERGY, INC. )  
SECURITIES LITIGATION, )  
6 )  
7 ) Case No. 5:12-CV-01341-G  
This Document Relates to: )  
8 )  
ALL ACTIONS. )  
9 \_\_\_\_\_ )

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15 DEPOSITION OF MICHAEL HALE

16 December 7, 2018

17 8:53 a.m. - 10:48 a.m.

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25 Reported by: Carrie LaMontagne, CSR No. 1976

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1 BY MR. BAUER:

2 Q. Did these weekly technical review meetings  
3 take place every week during your entire time working  
4 on the Miss Lime play?

5 A. Yeah.

6 Q. They never were canceled for any reason?

7 A. They may have been if something else was  
8 going on, but that was very rare. Maybe in my entire  
9 six months, if they were canceled, it was one, maybe  
10 two. It was very much a regular thing and it's -- in  
11 a lot of ways those meetings dictated what we did for  
12 the week, you know, our weekly duties. So they were  
13 very important.

14 Q. Okay. Let's talk about the management  
15 meetings now.

16 Where would those take place?

17 A. They would take place on the 28th floor in  
18 the main conference room.

19 Q. How many people would attend those?

20 A. I'd say as many as 40 at one point. They  
21 were quite populated.

22 Q. And you said you attended a couple of  
23 those?

24 A. Yes.

25 Q. Tell me about the -- let me ask generally

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1 first.

2 Did these management meetings take place at a  
3 set time?

4 A. I believe so, yes.

5 Q. Do you remember the set time?

6 A. With respect to the Miss because I only  
7 attended a few, I don't remember exactly what time it  
8 was. I remember when I worked the Permian, it was  
9 Tuesday mornings very early. So, yeah, I don't  
10 remember the exact time. But probably around similar  
11 time, Tuesday mornings.

12 Q. Okay. You attended two of those meetings.  
13 Tell us about the first one.

14 Approximately when was that?

15 A. I don't recall.

16 Q. How about the second one, approximately  
17 when was that?

18 A. I don't recall. Sometime between January  
19 and June of 2013.

20 Q. Okay. Do you remember any of the details  
21 of either of those meetings?

22 A. No. I could give general overviews. The  
23 main focus was to show overall well performance and  
24 to highlight either over-performing or  
25 underperforming wells.

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1 Q. Do you know, was there a particular reason  
2 why you went to those two weekly management meetings  
3 as opposed to all the others?

4 MR. HABER: Objection.

5 Go ahead.

6 THE WITNESS: No. At the time I was  
7 looking at some potential reservoirs in southern  
8 Alfalfa County.

9 BY MR. BAUER:

10 Q. So you had information -- tell me if this  
11 is correct, that you had information that would be  
12 useful at those meetings on two occasions and that's  
13 why you went to them?

14 A. Theoretically, yes. In practice, no. I  
15 didn't speak at either of those meetings, but I was  
16 there in case it came up.

17 Q. So who asked you to attend the meetings?

18 A. Mike Brown, my boss.

19 Q. Now, I'm starting to understand. You  
20 attended the meetings if Mike Brown asked you to  
21 attend them and that's why you went to those two.

22 Is that true?

23 A. Yeah. Almost always, if we attended those  
24 meetings, it was because the person we directly  
25 reported said you should be there because you're

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1 working on something important and it may come up.

2 Q. On the first two of the meetings do you  
3 remember any of the folks who were at the meeting?

4 A. Paul Stark, Craig Johnson, Tom Ward, I  
5 think Dave Lawler, Ross Gibley, Mike Brown,  
6 Mark Thomas. Mark Thomas was a senior geologist that  
7 I worked under. Grayson Prannin, he would have most  
8 likely been there. Other than that, I don't  
9 remember --

10 MR. KARAM: Can I have that spelled,  
11 please.

12 THE WITNESS: Grayson, G-R-A-Y-S-O-N,  
13 P-R-A-N-N-I-N, I believe.

14 MR. KARAM: Thank you. Sorry.

15 THE WITNESS: He was a facilities engineer.

16 BY MR. BAUER:

17 Q. Can you tell us anyone else who was at that  
18 first of the two management meetings you attended?

19 A. I don't recall.

20 Q. Okay. Let me go to the second of the two  
21 management meetings that you attended.

22 Who was at that meeting?

23 A. I don't recall, but every meeting I ever  
24 attended they were very similar attendee groups. So  
25 it was pretty uniformly the management team minus one

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1 again. Okay.

2 A. Okay.

3 MR. BENESH: The objection is just a place  
4 mark in the record for the judge to rule on later.  
5 Unless your lawyer gives you some instruction, you  
6 can disregard and answer as if there were no  
7 objection. It's for the court.

8 THE WITNESS: Thank you. Every time it  
9 happens, I'm like, What am I supposed to do at this  
10 point.

11 MR. BAUER: All right. You know, gosh, I  
12 guess we'll mark this complaint as another exhibit.  
13 So can we mark the third consolidated amended  
14 complaint as Exhibit 1 for this deposition please.

15 (Defendant's Exhibit Number 1 marked for  
16 identification purposes and made part of the record.)

17 BY MR. BAUER:

18 Q. All right. So we placed the third  
19 consolidated amended complaint in re Sandridge  
20 Security Litigation for the witness marked as  
21 Exhibit 1.

22 Have you ever seen this document before?

23 A. I have.

24 Q. When was the first time you saw it?

25 A. Probably -- approximately -- maybe



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1 November 20, something like that.

2 Q. Of this year?

3 A. Yeah, of this year.

4 Q. Okay. And did you review it?

5 A. I have.

6 Q. Okay. You read the whole thing?

7 A. I have.

8 Q. Took you some time probably?

9 A. Yes.

10 Q. Okay. When you were reviewing this, were  
11 you under the -- did you understand that the person  
12 referred to as -- let's see -- FE2 was you?

13 A. Yes, I assumed so.

14 Q. Why did you assume that?

15 A. Well, there was some uncanny similarities  
16 between the experiences, descriptions.

17 Q. Okay. Was there anything in the  
18 description related to FE2 that you looked at and  
19 weren't -- just weren't quite right that you would  
20 correct?

21 A. Do you have something specific you're  
22 thinking of?

23 Q. No, I'm just asking you generally.

24 A. Are you talking about my description?

25 Q. I'm talking about things that were

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1 attributed to FE2 when you reviewed it.

2 A. Gotcha. Like things I said, anything?

3 Q. Yes.

4 A. Okay. So I would say that there was one  
5 portion that came across as, I would say,  
6 substantively correct, but kind of tonally  
7 incomplete. So it wasn't wrong. I think it could  
8 just use some color. So let me find it.

9 Q. Okay.

10 A. Because I don't know exactly what page it's  
11 on, what it referred to was the description of the  
12 technical reviewing meetings. It said that we would  
13 decide, basically, what was shown to management.  
14 What it was was that those meetings, because they  
15 were for the technical team, you know, scientific and  
16 engineering team, our job really was to look at well  
17 results and to see whether or not there was some type  
18 of color that could be added to those that might help  
19 explain something.

20 So like I mentioned already, if a well was  
21 underperforming or over-performing, geology had the  
22 opportunity to look at something and say, Oh, well,  
23 this could be because there's some feature here or I  
24 don't really see anything, and then engineering would  
25 have an opportunity to look at that and say, Oh,

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1 well, we had trouble completing that well, or  
2 something like that.

3 So when that line says, you know, we decided  
4 what was shown, what it really means is we were, you  
5 know, able to contribute to the explanation to things  
6 so that they could be shown sort of in full color.

7 Q. Okay. As opposed to having the  
8 decision-making authority, you contributed to it.

9 Is that --

10 A. Correct.

11 Q. Okay. Turn to paragraph 128, which is page  
12 46, please.

13 A. Okay.

14 Q. Okay. And that says:

15 "According to FE2, the number of  
16 underperforming wells in the  
17 Mississippian was larger than expected  
18 and that overall since at least early  
19 2012, the Mississippian was not  
20 performing as well as expected."

21 I wanted to probe that for a bit. Okay?

22 A. No, that's fine.

23 Q. Okay. So when you talk about  
24 underperforming wells, what do you mean by that?

25 A. Well, underperforming would be relative to

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1 type curve.

2 Q. Can you explain that.

3 A. Yeah. So a type curve is basically -- they  
4 would analyze production in an area and come up with  
5 a decline curve that would reasonably forecast what a  
6 well was expected to make. So then you compare  
7 actuals against that, you know, probable forecast,  
8 you're type curve, and you analyze it, whether it's  
9 above or below. So that's what that means.

10 Q. Do you make a distinction between a decline  
11 curve and a type curve?

12 A. Well, there is a distinction, yes. So a  
13 decline curve is actually production versus time.  
14 And what you'll see is that over time production will  
15 decline as, you know, reservoir pressure starts to  
16 deplete and you start pulling more out.

17 A type curve is a little bit different, you  
18 know, obviously, because it's based off of other  
19 wells in the area. But a lot of times the way a type  
20 curve is shown is as a decline curve. So that's  
21 really what I'm saying. Yes, they are different.

22 Q. Okay. So when you -- when you were now  
23 telling what you consider to be an underperforming  
24 well, are you looking at performance relative to a  
25 type curve or relative to a decline curve?

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1 A. To a type curve.

2 Q. To fit your understanding of an  
3 underperforming well, how much under a performance --  
4 I'm going to have to start over. That's going to be  
5 a hard question to ask.

6 Did you consider a well to be underperforming if  
7 it was producing less than the type curve indicated?

8 A. Not necessarily.

9 Q. Can you explain that to me, please.

10 A. Sure, absolutely. In the different  
11 softwares that the reservoir engineers use, they will  
12 generate those decline curves based off of current  
13 production and they will superimpose the type curve  
14 on top of that. But off to the side there's all  
15 these metrics that are basically populating as a  
16 result of their actual analysis of the data.

17 So it would tell you kind of what the projected  
18 EUR is, what the B factor they're using, which is the  
19 rate of decline, what the rate of return is. So it's  
20 giving you a lot of different reservoir metrics  
21 that's an output, a direct output of their analysis.  
22 And so if you're looking at those numbers and the,  
23 you know, rate of return is nowhere near kind of what  
24 we expected it to be -- or the EUR is nowhere near  
25 what we would expect it to be, I would say it's

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1 underperforming.

2 So it's not necessarily just above or below type  
3 curve, you can have a well that's just marginally  
4 below type curve and it could potentially be a very  
5 good well.

6 Q. Is it to be expected that there's a  
7 variation --

8 A. Absolutely.

9 Q. -- in -- particularly in predictions of the  
10 future, right?

11 A. Well, yeah. And a type curve, of course,  
12 is an average. It's an average of all of the  
13 producing wells out there. And so, of course,  
14 there's going to be some percentage that are above  
15 and below that line.

16 Q. And so when you used the phrase nowhere  
17 near, so having production that's nowhere near what  
18 is reflected in the type curve is what you would  
19 consider an underperforming well?

20 A. I'm speaking in relative terms, but, yeah.  
21 I mean --

22 Q. Can you quantify that in any way for us?

23 A. Well, it's difficult to kind of verbalize.  
24 If you saw it on a graph, it's very obvious what is  
25 underperforming, especially when you see all the

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1 BY MR. BAUER:

2 Q. Did that little hypothetical scenario that  
3 you just laid out, did that ever happen with respect  
4 to any of the wells that you were paying attention to  
5 in the Mississippian?

6 A. Yes.

7 Q. Okay. Explain that to me then, please.

8 A. Okay. Shortly after I joined we had  
9 somebody -- I forget who it was. I believe it was  
10 Mark Thomas. He was my senior geologist. He told me  
11 whenever we are drilling wells if we encounter  
12 something called a loss circulation zone, mark down  
13 what depth it was at. And then we would put it in  
14 the geologic software we were using and it would  
15 place it along the well bore and then they could be  
16 mapped out.

17 What a loss circulation zone is -- just because  
18 I'm sure this is going to come up. A loss  
19 circulation zone is basically a portion along the  
20 horizontal well bore where the reservoir is actually  
21 stealing your drilling mud. Okay. So whenever we  
22 would experience those, they were interpreted to  
23 either be faults or major fracture swarms. But  
24 whatever it was, our drilling fluid was going back in  
25 the reservoir and we were not getting returns. So

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1           A.    Yeah, absolutely.  So we noticed -- at  
2    least I noticed it very quickly when I came on in  
3    2013 and we were attending the meetings that any  
4    subsequent wells drilled within a unit, like along  
5    a -- so, you know, we would typically drill one well  
6    and then we would come back and return to that unit  
7    and drill subsequent wells, so the original producing  
8    well, and then the we would drill development wells  
9    or infill wells.

10           The infill wells were seeing a significant  
11    decline relative to the original producing well and  
12    so we believed it was related to reservoir  
13    completion.

14           Q.    Okay.  And when you say we, who's we?

15           A.    The entire technical team.

16           Q.    That was not an opinion that was just held  
17    by you?

18           A.    Correct.

19           Q.    When this allegation says that the number  
20    of underperforming wells was larger than expected,  
21    help me understand what's the expectation of  
22    underperforming wells.  Let me ask you -- you're  
23    pausing.  Let me withdraw that for a second and ask.

24           Is this phrase the number of underperforming  
25    wells in the Mississippian was larger than expected,



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1 is that something that you told to the plaintiffs and  
2 the investigators here?

3 A. I believe, if I recall, I was asked what my  
4 overall opinion of the play as a whole and how it was  
5 working, and I said that it wasn't going the way we  
6 thought it was going to.

7 Q. Okay. So what I don't want to do is put  
8 words in your mouth and then ask you to describe  
9 them.

10 A. Sure.

11 Q. So would you say that the number of  
12 underperforming wells in the Mississippian was larger  
13 than expected or -- would that be your testimony or  
14 would it be what you just described to me, which it  
15 wasn't going as well as planned?

16 A. I would say those two statements aren't  
17 mutually exclusive. If I say the number of wells are  
18 not performing as expected, that goes into the  
19 cumulative whole of the play, and I'm saying that the  
20 play was not working out as expected. So I would say  
21 both of those statements would be true.

22 Q. Let me ask you, how does -- or what was the  
23 expectation of the number of underperforming wells in  
24 the Mississippian?

25 A. I don't know.

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1 Q. Why did you conclude that the number of  
2 underperforming wells was larger than expected?

3 A. Because when we would attend our technical  
4 review meetings, you know, Paul Stark, he was the  
5 person who was in charge of the meetings and he was  
6 the reservoir -- I don't remember what his title  
7 was -- reservoir manager, asset manager, whatever.

8 Whenever we would try and propose wells, he was  
9 very quick to say, No, we're not drilling those.  
10 These are not economic wells. These are economic.  
11 And it was a very small area.

12 Q. So he would -- so even -- so let me make  
13 sure I understand that.

14 Why would you propose a well -- can you give me  
15 a situation in which you proposed a well based on  
16 geology and Paul Stark said, No, we're not going to  
17 drill there based on economics?

18 MR. HABER: Objection. Foundation.

19 Go ahead.

20 THE WITNESS: I can't think of a specific  
21 instance, but it happened quite regularly. I mean,  
22 essentially, because we had these obligations, you  
23 know, we had these different Mississippian trust  
24 obligations and we had rig lines that were  
25 specifically devoted to them, and so we had units

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1 that were part of those trust obligations.

2 And we would propose those and, you know, there  
3 was always some pushback; and then wells, if we tried  
4 ones that were not part of the same -- the trust in  
5 adjacent townships or adjacent sections, we would  
6 definitely get pushback and say, No, we're not  
7 drilling those.

8 BY MR. BAUER:

9 Q. Okay. And that pushback came from  
10 Paul Stark?

11 A. Yes.

12 Q. You say based on economics?

13 A. Yes.

14 Q. What's that shorthand for?

15 A. Well, I would say I'm sort of using that as  
16 like a cumulative, all-encompassing term. But in  
17 this case I would mean it with respect to expected  
18 EUR, rate of return, things like that.

19 Q. Since you were working in Alfalfa County,  
20 was there any change in the drilling program because  
21 of an unexpectedly large number of underperforming  
22 wells?

23 A. I would actually -- can you clarify that  
24 just a little more.

25 Q. Sure. So I'm focusing on your work on the

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1 Mississippian in Alfalfa County, and the question is  
2 did -- if there were a larger number of  
3 underperforming wells than expected, what, if  
4 anything, did the -- did the -- or how did the  
5 drilling program change, if at all?

6 A. Sure. Well, drilling would definitely, you  
7 know, high grade our best locations and then just  
8 make sure those were put on the rig lines. So  
9 whereas before there was kind of a policy of, all  
10 right, we're going to move around a bit and sort of  
11 develop this acreage position, it was -- during 2013  
12 there was definitely more of a focus like, No, we're  
13 only putting wells from these few sections or these  
14 few townships on a rig line.

15 Q. Now, in your experience, is there anything  
16 unusual about adapting your drilling program to data  
17 as it comes out of existing wells?

18 A. No, not at all. I think that's a pretty  
19 reasonable, yeah, business practice.

20 Q. I'm back to paragraph 128, and it says,  
21 Overall, since at least early 2012, the Mississippian  
22 was not performing as well as expected."

23 Is early 2012 was that something you said or was  
24 that something that got dropped in the complaint?

25 A. I honestly think that was something that

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1 was dropped in the complaint because I didn't work on  
2 it in 2012. The only thing I had to go by was just,  
3 you know, discussions I had with fellow geologists.

4 I remember other geologists that were working  
5 the Miss saying that, you know, they were kind of  
6 luke warm on it. Like, How's it working out; It's  
7 okay, you know, some wells are good and some wells  
8 are bad. But not as early as early 2012, I couldn't  
9 attest to that.

10 Q. So you'd say though that in your view the  
11 Mississippian wasn't performing as well as expected  
12 as of sometime in 2013?

13 A. I would say as of sometime in 2012. I just  
14 couldn't say with certainty that it was early 2012.  
15 All the people that I knew, you know, geologists were  
16 kind of a click. You know, I have a lot of friends.  
17 I mean, we're all unique characters.

18 Whenever I would ask those friends that were  
19 working on those assets, you know, they would tell  
20 you.

21 Q. And they would say, It's not doing as well,  
22 as you said to me?

23 A. Yeah. I mean, the one thing I remember  
24 very clearly was, like, Kansas is not working at all  
25 kind of thing.

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1 Q. So when was the first time that you  
2 personally saw data that made you conclude that the  
3 number of underperforming wells in the Mississippian  
4 was larger than expected?

5 A. 2013 when I was working the asset.

6 Q. Okay. And what month in 2013 if you can --  
7 if you can't estimate, that's okay.

8 A. March. It would have been sometime shortly  
9 after I worked there because there's always, you  
10 know, an adjustment period with any new play you're  
11 working on. You're still trying to figure out what  
12 is what.

13 Q. Yeah.

14 A. The last few months I worked with the  
15 Miss Lime, you know, I understood full well what the  
16 status of things was.

17 Q. Okay. Did you discuss that the number of  
18 underperforming wells was larger than expected with,  
19 you know, any of your coworkers in 2013?

20 A. I'm pretty confident I discussed it with  
21 several of my coworkers, yes.

22 Q. And who would that be.

23 A. I know Mike Brown and I had a conversation  
24 about it one time. He was my boss and we were  
25 talking a bit about the play and he was talking about

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1 Repsol's carry and saying, Well, you know, without  
2 them, some of these wells aren't really very  
3 economic, kind of thing. The people I worked  
4 directly with were Mark Thomas and Brian Hunt and  
5 Frank Guerrero, and I'm almost certain I had that  
6 conversation with them.

7 Q. Can you remember any details about what  
8 they said back or what you said to them?

9 A. No. I mean, really it was as simple as,  
10 you know, This could be better kind of thing and they  
11 were, like, Yeah. It wasn't ever -- we didn't really  
12 sit around and talk about it for 20 minutes. We had  
13 better things to talk about, but it definitely came  
14 up.

15 Q. Okay. And no one ever suggested that  
16 anyone should lie about the production in the Miss  
17 or --

18 A. No, not at all.

19 Q. Different subject now.

20 A. Okay.

21 Q. Are you receiving any compensation for your  
22 testifying?

23 A. No.

24 Q. For the plaintiffs in this case?

25 A. No.

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1 Q. So would it be correct that during your  
2 time at Permian in 2012 -- or was it also 2011?

3 A. I worked the Permian 2010 through 2013 and  
4 then switched over.

5 Q. And at those weekly management meetings  
6 where you attended, there would also be a discussion  
7 of the Mississippian?

8 A. Correct.

9 MR. KARAM: I don't have any other  
10 questions.

11 MR. BENESH: Can you reread that last Q and  
12 A, please.

13 (The following question and answer was read as  
14 follows:

15 "Q. And at those weekly management meetings  
16 where you attended, there would also be  
17 a discussion of the Mississippian?

18 "A. Correct.")

19 MR. BENESH: I don't know if we're going to  
20 go around the table again. I'm going to ask one  
21 trustee related question related to that Q and A, but  
22 I'll wait for my return.

23 EXAMINATION

24 BY MR. BAUER:

25 Q. Let me just follow-up on that last bit.



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1 You were talking about management meetings, right.

2 So when you first started and you were working  
3 on the Permian, did you go to the weekly management  
4 meetings?

5 A. Yeah. When I worked the Permian, I  
6 attended them almost every week.

7 Q. Okay. You attended those all the time  
8 while you were working the Permian?

9 A. Yeah, like -- as I mentioned before,  
10 sometime towards the end of it, probably in 2012, I  
11 didn't attend as often because everything just  
12 started getting really busy and it was kind of on a  
13 need-to-go thing. I still attended frequently. It  
14 just wasn't every single week. But the field areas  
15 that I was responsible for were incredibly active  
16 with respect to drilling and production. I was a  
17 vital part of those meetings.

18 Q. Okay. So do you have a memory of when they  
19 started having separate meetings for the Permian and  
20 the Miss?

21 A. I don't know for certain, but it probably  
22 would have been sometime in 2011. It was well before  
23 we sold off our Permian assets.

24 MR. BAUER: Okay. I've got no other  
25 questions.